ELECTRONICS, INC.
44 FARRAND STREET
BLOOMFIELD, NJ 07003
(973) 748–5089
http://www.nteinc.com

NTE7010
Integrated Circuit
Single Chip NTSC Color TV
Processor W/OSD Interface

Description:

The NTE7010 combines all the functions required for an NTSC color TV system in a 54–Lead DIP type package. This device includes PIF/SIF circuits, video/chroma/deflection circuits, chroma band pass filters, red and green OSD interfaces, and 1 channel audio video switches.

PIF Circuits

- 3–Stage Variable–Gain PIF Amplification Stage
- High–Speed Response ACC with Dual Time Constants (Peak AGC)
- Single End AFT Output with Defeat Function
- RF Delay AGC Output (Reverse AGC)
- Sync. Negative Detected Video Output Polarity
- Internal Black/White Noise Inverter

SIF Circuits

- 3–Stage Limiter Amplification Stage
- Quadrature FM Detector Circuit with Sound Mute Function
- 1 Channel External Audio Input
- High–Performance Electronic Attenuator Circuit
- Preamplifier Circuit

Video Circuit

- 2nd Order–Differential–Type Picture Sharpness Circuit (DC Control)
- Contrast Control with Unicolor Function
- Brightness Control with Pedestal Clamping Circuit (Variable DC Restoration Ratio)
- External Video Input

Chroma Circuit

- Internal $^1/_2$ f_{sc} Trap
- Internal Band Pass Filter
- ACC Circuit
- Color Control Circuit
- Unicolor Control Circuit
- Color Differential Output
- Tint Control Circuit
- Adjustment–Free APC Circuit

Deflection Circuits

- High–Performance Sync Separation Circuit
- Adjustment–Free Horizontal Oscillation Circuit
- Stable Vertical Synchronization
- Sawtooth–Type AFC (Internal Sawtooth Wave Generator)
- Horizontal Predrive Output
- X–Ray Protection Circuit
- Vertical NFB Amplification Circuit

OSD Interface (R, G Inputs)

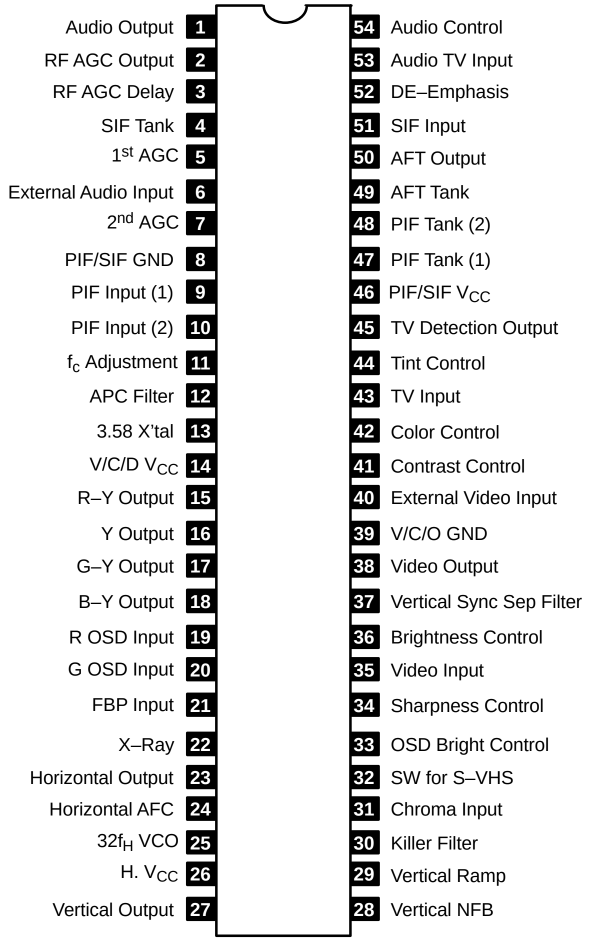
- Directly Driven by µ–computer

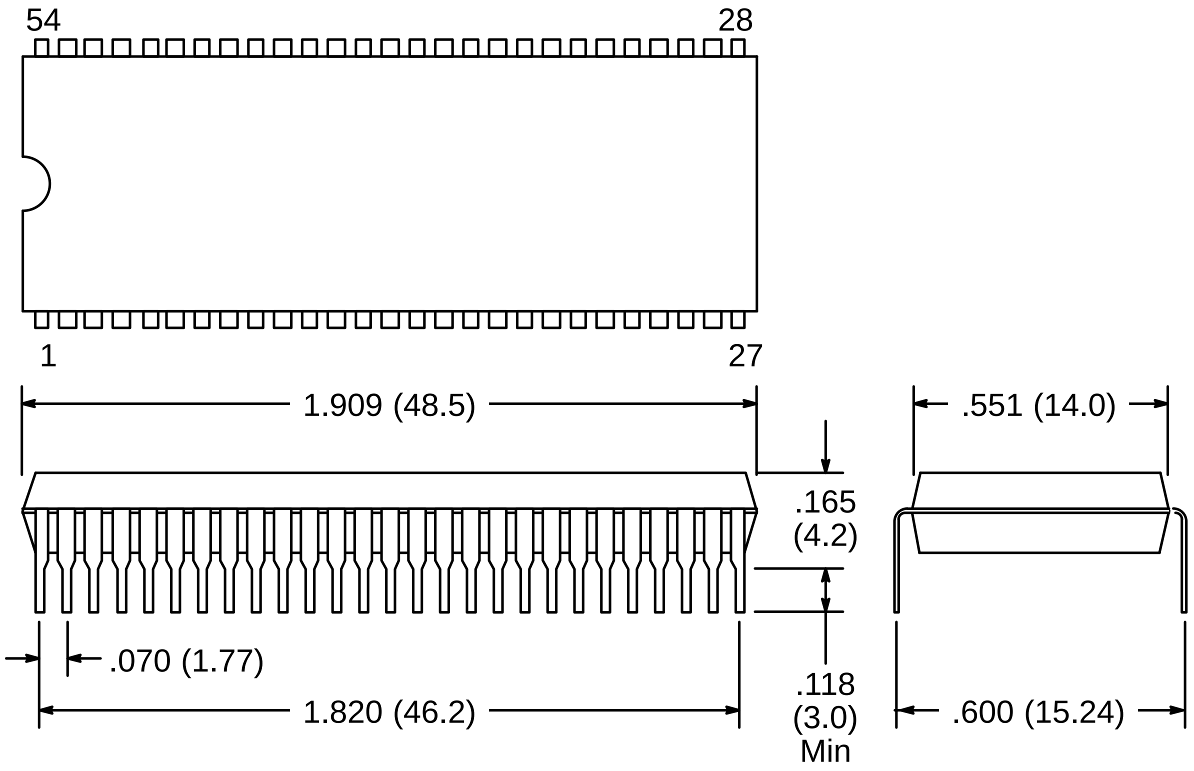
Absolute Maximum Ratings: (T_A = +25°C unless otherwise specified)

Power Supply Voltage, V_{CC} 13V
Internal Pin Voltage, V_{in} . . . . GND –0.3V to V_{CC} +0.3V
Input Signal Amplitude, e_{in} . . . . $4V_{P–P}$
Power Dissipation, P_D 1.92W
Derate Above 25°C . . . . 15.3mW/°C
Operating Temperature Range, T_{opr} . . . . –20° to +65°C
Storage Temperature Range, T_{stg} . . . . –55° to +150°C

Note 1. **CAUTION!** This device is easily damaged by high static voltage or electric fields so extreme care should be used when handling.

Pin Connection Diagram





54
28
1
27
1.909 (48.5)
.551 (14.0)
.165
(4.2)
.118
(3.0)
Min
.070 (1.77)
1.820 (46.2)
.600 (15.24)

This datasheet has been download from:

www.datasheetcatalog.com

Datasheets for electronics components.